Infineon boosts its war chest

Infineon sought approval at its January annual stockholder meeting for plans to sell 175m shares to refill its acquisition funds. That fund, approved in '02 runs through to 2007. It expects to see consolidation in the industry in future and opportunities for further takeovers.

"It is important to be prepared for such takeovers and consequently propose to the AGM that the authorised share capital be replenished with €55,000,000 ($67m) to restore it to €350,000,000 ($432m) approved by the AGM in 2002, that is to say, to a total of 175m shares." The 175m stock sale should amount to around €2bn or $2.4bn.

First buy is ADMtek Inc, a fabless broadband customer premise equipment IC design company in Hsinchu, Taiwan, for around $100m (€80m) cash.

DOE picks Honeywell for sensing, wireless work for operation control in eight 'key industries'

Honeywell has been selected to negotiate a $10m project co-funded by the US Department of Energy to develop wireless and sensor technologies that meet plant floor operational control challenges and help US industry reduce annual operating costs by up to $1bn.

Eight key industries use significant amounts of heat and energy to physically and chemically transform raw materials used to produce finished goods.

Classified by the DOE as 'Industries of the Future,' the companies - in aluminum, chemicals, forest products, glass, metal casting, mining, petroleum and steel - offer a tremendous opportunity for improving efficiencies that will contribute to reducing industry's energy consumption.

Collectively, Industries of the Future supply 90% of materials vital to the US economy, produce $1trn in annual shipments, directly employ more than 3m and indirectly provide an additional 12m jobs at all skill levels.

Manufacturers from several industries currently face physical and technology barriers that limit the ability to move and manage operational data in plant floor environments.

As a result, they lack accurate real-time process information sufficient to control processes.

Industrial processes that physically or chemically transform materials are large users of heat and energy. Lack of precise, descriptive, real-time information results in sub-optimal or non-controlled processes and higher-than-necessary energy consumption.

The projects potential return is significant because of the total amount of energy that US industries consume.

The DOE and Honeywell believe solutions comprising sensing, wireless and control technologies can drive energy savings (up to 256trn BTU per year), lessen environmental impacts and increase yields.

Six business units from the Honeywell ACS group teamed with the Honeywell ACS Labs and nearly 20 other industrial team members to establish a cost-shared project that aims to significantly improve process control and automation capabilities specific to industrial applications.

Honeywell will work with project team members in developing and applying sensing and wireless technologies to energy-intensive industrial operations.

By improving processing and control methods, DOE project partners believe manufacturers can improve efficiencies around measuring, analysing and controlling gas and liquid process streams that are inefficient and costly.

"The ultimate objective is to help industry optimise energy, space and other resources," said Sheflin. "Wireless and sensing technologies, plus advances in installing and managing sensors and other control devices, can help manufacturers save time and money, utilise timely, more robust data, and be more aware of their processes."

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InP and Si for PICMOS

Back in April 2003, IMEC urged an EU research project for a photonic interconnect layer on CMOS by wafer-scale integration (PICMOS).

The then seven participants were IMEC, STM, CEA/LETI, Tracit Technologies, CNRS-FMT (National Centre for Scientific Research and the Rhone Alpes Micro and Nanotechology Federation of seven laboratories), National Council for Scientific R&D, Greece and Technical University of Eindhoven, the Netherlands.

This year, PICMOS is underway with eight players. CNSR-FNT has gone. But taking up the gauntlets are University of Ghent, Belgium and University of Lyon, France who join the founder players of IMEC, SMT, CEA/LETI, and Tracit, NCSRD Greece and TUE.

The €4.2m three-year project aims to integrate InP-based optical interconnects with Si circuits in the attempt to solve the expected bottlenecks emerging from conventional interconnects in future ICs.

Two strategies will be worked on. Both will be based on a planar interconnect layer, built from a high-density optical wiring circuit, integrated with InP-based sources and detectors.

The first route involves a wafer-to-wafer bond technology, where the photonic interconnect layer is fabricated in parallel with the electronic circuit wafer and both wafers would be bonded.

The second approach will be to have the photonic layer fabricated directly on top of the electronic circuit. III-V epi material for the active photonic devices will be bonded on top of the waveguide circuits before the substrate is removed. The active devices will then be defined in the remaining material. To overcome the size discrepancy between InP and Si wafers, the project team is to develop a rapid die-to-wafer bonding step.